

ABSTRACT OF THE DISCLOSURE

An unprocessed cluster index and its amount of parallel movement are acquired. The order of processing clusters does not matter as long as the frame is the same. Subsequently, with respect to an unprocessed vertex corresponding to this acquired cluster index, a vertex index and the weight  $w$  of this vertex are obtained. Then, according to the amount of parallel movement and weight  $w$  in the same frame, the values of coordinates of the vertex buffer are changed. Since the cluster transformation is effected by parallel movement here, the order of processing clusters does not matter, and it is thereby possible to calculate the vertex coordinates after transformation by simple multiplication and addition alone without matrix operations.